

AMENDMENTS TO THE CLAIMS

1. (currently amended) A rolling bearing sized for use in a swing arm of a hard disk drive, the rolling bearing comprising a plurality of rolling elements provided between inner and outer rings, at least one of the inner and outer rings being formed of corrosion resistant bearing steel comprising carbon of 0.5 to 0.56 wt%, silicon of 1 wt% or less, manganese of 1 wt% or less, phosphorus of 0.03 wt% or less, sulfur of 0.01 wt% or less, chromium of 8.00 to 9.50 wt%, molybdenum of 0.15 to 0.50 wt%, copper of 0.30 to 0.7 wt%, titanium of 15ppm or less, vanadium of 0.15 wt% or less, oxygen of 15ppm or less, iron as remaining component and impurities inevitably incorporated therein, the corrosion resistant bearing steel containing eutectic carbides having a circle equivalent diameter with an average value of 0.2 to 1.6 μm , the eutectic carbides having an average area of 0.03 to 2 μm^2 and an area ratio of 2 to 7 %, the corrosion resistant bearing steel having a hardness of HRC 58 to 62 by JIS, and containing a retained austenite of 6 volume % or less.

2. (currently amended) A rolling bearing sized for use in a swing arm of a hard disk drive, the rolling bearing comprising a plurality of rolling elements provided between inner and outer rings, the inner and outer rings, and the rolling elements being formed of corrosion resistant bearing steel comprising carbon of 0.5 to 0.56 wt%, silicon of 1 wt% or less, manganese of 1 wt% or less, phosphorus of 0.03 wt% or less, sulfur of 0.01 wt% or less, chromium of 8.00 to 9.50 wt%, molybdenum of 0.15 to 0.50 wt%, copper of 0.30 to 0.7 wt%, titanium of 15ppm or less, vanadium of 0.15 wt% or less, oxygen of 15ppm or less, iron as remaining component and impurities inevitably incorporated therein, the corrosion resistant bearing steel containing eutectic carbides having a circle equivalent diameter with an average value of 0.2 to 1.6 μm , the eutectic carbides having an average area of 0.03 to 2 μm^2 and an area ratio of 2 to 7 %, the corrosion resistant bearing steel having a hardness of HRC 58 to 62 by JIS, and containing a retained austenite of 6 volume % or less.

3. (currently amended) A rolling bearing sized for use in a swing arm of a hard disk drive, the rolling bearing comprising a plurality of rolling elements provided between a rolling contact groove formed on an outer periphery of a shaft and a rolling contact groove formed on an inner periphery of an outer ring, at least one of the shaft and the outer ring being formed of corrosion resistant bearing steel comprising carbon of 0.5 to 0.56 wt%, silicon of 1 wt% or less, manganese of 1 wt% or less, phosphorus of 0.03 wt% or less, sulfur of 0.01 wt% or less, chromium of 8.00 to 9.50 wt%, molybdenum of 0.15 to 0.50 wt%, copper of 0.30 to 0.7 wt%, titanium of 15ppm or less, vanadium of 0.15 wt% or less, oxygen of 15ppm or less, iron as remaining component and impurities inevitably incorporated thereinto, the corrosion resistant bearing steel containing eutectic carbides having a circle equivalent diameter with an average value of 0.2 to 1.6 μm , the eutectic carbides having an average area of 0.03 to 2 μm^2 and an area ratio of 2 to 7 %, the corrosion resistant bearing steel having a hardness of HRC 58 to 62 by JIS, and containing a retained austenite of 6 volume % or less.

4. (previously presented) The rolling bearing according to claim 1, wherein an average crystal grain size of the corrosion resistant bearing steel is 6 to 9.5 μm .

5. (original) A material for a rolling bearing, which is corrosion resistant bearing steel comprising carbon of 0.5 to 0.56 wt%, silicon of 1 wt% or less, manganese of 1 wt% or less, phosphorus of 0.03 wt% or less, sulfur of 0.01 wt% or less, chromium of 8.00 to 9.50 wt%, molybdenum of 0.15 to 0.50 wt%, copper of 0.30 to 0.7 wt%, titanium of 15ppm or less, vanadium of 0.15 wt% or less, oxygen of 15ppm or less, iron as remaining component and impurities inevitably incorporated thereinto, the corrosion resistant bearing steel containing eutectic carbides having a circle equivalent diameter with an average value of 0.2 to 1.6 μm , the eutectic carbides having an average area of 0.03 to 2 μm^2 and an area ratio of 2 to 7 %.

6. (previously presented) An instrument having a rotating portion using the rolling bearing according to claim 1.

7. (previously presented) An instrument having a rotating portion using the rolling bearing according to claim 2.

8. (previously presented) An instrument having a rotating portion using the rolling bearing according to claim 3.
9. (previously presented) An instrument having the rotating portion according to claim 6 wherein the instrument is a hard disk drive.
10. (previously presented) An instrument having the rotating portion according to claim 6 wherein the instrument is a precision instrument.
11. (previously presented) The rolling bearing according to claim 2, wherein an average crystal grain size of the corrosion resistant bearing steel is 6 to 9.5 μm .
12. (previously presented) The rolling bearing according to claim 3, wherein an average crystal grain size of the corrosion resistant bearing steel is 6 to 9.5 μm .
13. (previously presented) An instrument having a rotating portion using the rolling bearing according to claim 4.
14. (previously presented) An instrument having the rotating portion according to claim 6 wherein the instrument is a hard disk drive.
15. (previously presented) An instrument having the rotating portion according to claim 7 wherein the instrument is a hard disk drive.
16. (previously presented) An instrument having the rotating portion according to claim 13 wherein the instrument is a hard disk drive.
17. (previously presented) An instrument having the rotating portion according to claim 8 wherein the instrument is a hard disk drive.
18. (previously presented) An instrument having the rotating portion according to Claim 7, wherein the instrument is a precision instrument.
19. (previously presented) An instrument having the rotating portion according to Claim 8, wherein the instrument is a precision instrument.

20. (previously presented) An instrument having the rotating portion according to Claim 13, wherein the instrument is a precision instrument.

21. (new) The rolling bearing of claim 1 in combination with a hard disk drive, the hard disk drive having a rotating portion, the rolling bearing operatively coupled to the rotating portion.

22. (new) The rolling bearing of claim 2 in combination with a hard disk drive, the hard disk drive having a rotating portion, the rolling bearing operatively coupled to the rotating portion.

23. (new) The rolling bearing of claim 3 in combination with a hard disk drive, the hard disk drive having a rotating portion, the rolling bearing operatively coupled to the rotating portion.